



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/752,167 | 12/29/2000 | Merle L. Miller | 2069.008600 | 8941 |

23720 7590 09/21/2007
WILLIAMS, MORGAN & AMERSON
10333 RICHMOND, SUITE 1100
HOUSTON, TX 77042

| |
|----------|
| EXAMINER |
|----------|

SINGH, RAMNANDAN P

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2614

| | |
|-----------|---------------|
| MAIL DATE | DELIVERY MODE |
|-----------|---------------|

09/21/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|--|--------------------------------------|---|--|
| <div style="border: 1px solid black; width: 150px; height: 20px; margin: 0 auto;"></div> <p style="text-align: center;">Office Action Summary</p> | Application No. 09/752,167 | Applicant(s) MILLER, MERLE L. | |
| | Examiner Ramnandan Singh | Art Unit 2614 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 7-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 7-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. PREFACE

This case has been transferred to another examiner.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 7-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Zhou [US 5,926,544].

Regarding claim 1, Zhou discloses a method for ring-trip detection in a line card (300), as shown in Figs. 7-8, comprising:

using an analog-to-digital converter (314) for processing voice signals [Fig. 3; col. 6, lines 29-50];
receiving a ringing control signal [Fig. 3; col. 7, line 10-24];
transmitting a ringing signal to a subscriber line in response to the ringing

control signal [Fig. 3; col. 7, lines 24-32];
receiving a portion of the ringing signal from the subscriber line and
converting the portion of the ringing signal to a digital signal using the
digital-to-analog converter [Fig. 7; col. 9, line 8 to col. 10, line 51]; and
providing a ring-trip indication (722) in response to the digital signal [Fig. 7;
col. 10, lines 52-67; Fig.4; col. 13, line 18 to col. 14, line 22].

Claim 7 is essentially similar to claim 1 except for DC feed control, a
ringing generator and trip-detection logic. Zhou further discloses using DC
feed control (718) [Fig. 7; col. 10, lines 52-67], a ringing generator (not
shown) [Figs. 3, 9; col. 11, lines 1-20], and a trip-detection logic (digital
signal processor 608) [Fig. 6; col. 8, lines 44-53].

Claim 9 is essentially similar to claim 7 and is rejected for the reasons
stated above.

Claims 13, 18, 19 and 22 are essentially similar to claim 1 and are
rejected for the reasons stated above.

Regarding claim 2, Zhou further discloses the method, wherein the ringing signal comprises an AC signal [Figs. 2, 9; col. 1, line 53 to col. 2, lines 19].

Regarding claim 3, Zhou further discloses the method, including terminating the ringing signal in response to the ring-trip indication [col. 9, line 27 to col. 10, line 2].

Regarding claims 8, 10-12, the limitations are shown above.

Regarding claim 14, Zhou further discloses the line card, wherein the subscriber line integrated circuit is a voltage subscriber line interface circuit [Figs. 3, 6; col. 5, lines 4-11; col. 8, lines 17-43].

Regarding claims 15-17, 20-21, 23-24, the limitations are shown above.

Response to Arguments

4. Applicant's arguments filed on May 02, 2007 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(i) Zhou [US 6,219,417 B1] teaches ring trip detection in a communication [Whole document]; and

(ii) Schopfer [US 6,778,663 B1] discloses a method and apparatus for sensing current [Figs. 1 thru 5B; Abstract].

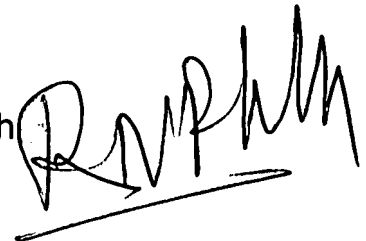
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramnandan Singh whose telephone number is (571) 272-7529. The examiner can normally be reached on M-TH (8:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang can be reached on (571) 272-7547. The

fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ramnandan Singh
Primary Examiner
Art Unit 2614

A handwritten signature in black ink, appearing to read 'Ramnandan Singh', written over a horizontal line.